

IN THE CLAIMS

1. (Currently Amended) Method for bitrate control in a video or audio encoder ~~having containing~~ an encoded-data buffer, ~~wherein the encoded output video or audio data pass through said encoded data buffer and an input buffer of a data recorder and are thereafter stored on a storage medium operated in said data recorder, the method~~ including the steps:

using a first control signal representing the current filling level of said encoded-data buffer to control the video or audio encoder output bitrate by corresponding adaptation of at least one encoding parameter used in said video or audio encoder;

~~controlling additionally said encoding parameter and/or further encoding parameters influencing said video or audio encoder output bitrate by a second control signal representing the current filling level of said input buffer and/or by a third control signal representing a currently available storage capacity on said storage medium~~

passing the encoded video or audio data through said encoded-data buffer and through a downstream input buffer of a data recorder for storage on a storage medium operated in said data recorder, wherein said encoded video or audio data, after passing through said encoded-data buffer, pass through said input buffer together with data from at least one other encoded data stream before being recorded on said storage medium, thereby controlling said at least one encoding parameter additionally by a second control signal representing the current filling level of said input buffer of said data recorder in order to avoid overflow and underflow of said input buffer.

2. (Original) Method according to claim 1, wherein said video or audio encoder is an MPEG encoder, in particular MPEG-2 video.

3. (Original) Method according to claim 1, wherein said data recorder is a DVD recorder.

4. (Currently Amended) Method according to claim 1, wherein said video or audio encoder has in its encoding loop a ~~quantiser~~ quantizer and said encoding parameter is ~~a setting or parameter for the characteristic of said quantiser~~ quantizer and, if present, of an inverse quantiser quantizer.

5. (Currently Amended) Method according to claim 1, wherein the data stream input to said video or audio encoder is an MPEG data stream and includes data - e.g. EPG data - concerning the temporal length or data concerning the amount of data for a program to be recorded, from which data, based on the initial or currently remaining program length and a desired average data rate, and based on the initial or currently remaining program length and a desired average data rate, and based on the initial or currently remaining storage capacity for this program on said storage medium, ~~the said~~ at least one encoding parameter is ~~calculated accordingly using said second control signal and/or said third control signal~~ additionally controlled.

6. (Currently Amended) Apparatus for bitrate control, including:
a video or audio encoder to which an encoded-data buffer is assigned;
a data recorder including an input buffer, wherein output video or audio data of said encoded-data buffer pass through said input buffer together with data from at least one other encoded data stream and are thereafter stored on a storage medium operated in said data recorder,

and wherein a first control signal representing the current filling level of said encoded-data buffer is used to control the video or audio encoder output bitrate by corresponding adaptation of at least one encoding parameter used in said video or audio encoder, and

wherein said at least one encoding parameter ~~and/or is further encoding parameters influencing said video or audio encoder output bitrate~~ are additionally controlled by a second control signal representing the current filling level of said input buffer ~~and/or by a third control signal representing a currently available storage capacity on said storage medium of said data recorder in order to avoid overflow and underflow of said input buffer~~.

7. (Original) Apparatus according to claim 6, wherein said video or audio encoder is an MPEG encoder, in particular MPEG-2.

8. (Original) Apparatus according to claim 6, wherein said data recorder is a DVD recorder.

9. (Currently Amended) Apparatus according to claim 6, wherein said video or audio encoder ~~has~~ comprises in its encoding loop a ~~quantiser~~ quantizer and said encoding parameter is ~~a setting or parameter for said quantiser~~ the characteristic of said quantizer and, if present, an inverse ~~quantiser~~ quantizer.

10. (Currently Amended) Apparatus according to claim 6, wherein the data stream input to said video or audio encoder is an MPEG data stream and includes data - e.g. EPG data - concerning the temporal length or data concerning the amount of data for a program to be recorded, from which data, based on the initial or currently remaining program length and a desired average data rate, and based on the initial or currently remaining storage capacity for this program on said storage medium, the at least one encoding parameter is ~~calculated accordingly using said second control signal and/or said third control signal~~ additionally controlled.